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AMENDMENT UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP 2834
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q61526

Toshiaki KASHIHARA, et al.

Appln. No.: 09/705,792

Group Art Unit: 2834

Confirmation No.: 6031

Examiner: Karl I. Tamai

Filed: November 7, 2000

For: VEHICLE AC GENERATOR WITH RECTIFIER DIODE PACKAGE DISPOSED
BETWEEN COOLING PLATES

AMENDMENT UNDER 37 C.F.R. § 1.116

ATTN: BOX AF
Commissioner for Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated June 12, 2002, please amend the above-identified application as follows:

IN THE CLAIMS:

Please enter the following amended claims:

1. (Amended) A vehicle AC generator comprising:

a case;

a shaft journaled in the case;

a rotor secured to the shaft so as to be disposed in the case;

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cm*
a stator supported by the case so as to be disposed to cover the external periphery of the rotor;

ventilating means rotated together with the rotor; and

a rectifier unit cooled by the ventilating means, the rectifier unit comprising:

cooling plates for the positive-electrode and negative-electrode sides disposed at a predetermined interval and each having principal planes opposing each other; and

a diode package disposed between the cooling plates for the positive-electrode and negative-electrode sides, the diode package comprising:

a unidirectionally conducting element for the positive-electrode side;

a unidirectionally conducting element for the negative-electrode side having a cathode face joined to an anode face of the unidirectionally conducting element for the positive-electrode side by interposing an AC input terminal therebetween;

a base for the positive-electrode side formed of a metallic plate and joined to a cathode face of the unidirectionally conducting element for the positive-electrode side;

a base for the negative-electrode side formed of a metallic plate and joined to an anode face of the unidirectionally conducting element for the negative-electrode side; and

an insulating resin provided so that the unidirectionally conducting elements for the positive-electrode and negative-electrode sides are embedded therein, at least end faces of the respective bases for the positive-electrode and negative-electrode sides are exposed therefrom on both sides in the depositing direction of the unidirectionally conducting elements for the

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positive-electrode and negative-electrode sides, and the top end of the AC input terminal extends therefrom,

wherein in the diode package, the end face of the base for the positive-electrode side is joined to a side, of the cooling plate for the positive electrode side, that is substantially parallel to the principal plane of the cooling plate for the positive-electrode side while the end face of the base for the negative-electrode side is joined to a side, of the cooling plate for the negative electrode side, that is substantially parallel to the principal plane of the cooling plate for the negative-electrode side.

REMARKS

Claims 1-8 and 11-19 are all the claims pending in the application. Claim 1 is the only independent claim. Applicants amend claim 1.

Claim Rejections 35 U.S.C. § 103(a)

Claims 1, 5, 6, 11, 13, 15-17, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano (JP 176539) in view of Gautier (US 5,982,062).

Claim 1

Applicants submit that amended claim 1 is allowable over the cited prior art. Applicants have amended claim 1 so that it now includes recitations that “the end face of the base for the positive-electrode side is joined to a side, of the cooling plate for the positive electrode side, that is substantially parallel to the principal plane of the cooling plate for the positive electrode side” and “the end face of the base for the negative-electrode side is joined to a side, of the cooling plate for the negative electrode side, that is substantially parallel to the principal plane of the cooling plate for the negative-electrode side”.

As is discussed by the Examiner in ¶ 11 of the Office Action dated June 12, 2002, Kawano merely teaches that the bases 50 of the diodes are joined on their sides to holes within the radiation fins 1,4. These bases are clearly not joined to sides of the cooling plates “that are substantially parallel to the principal plane of the cooling plate[s]”, as is now claimed, but are instead joined to holes within cooling plates.

As such, Applicants submit that the combination of Kawano and Gautier does not teach or suggest all of the claim recitations and request that the Examiner withdraw the rejection of claim 1.

Claims 5, 6, 11, 13, 15-17, and 19

Applicants request that the Examiner withdraw the rejection of claims 5, 6, 11, 13, 15-17, and 19 at least because of their dependency from claim 1.

Claim 2

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Einthoven (US 5,960,068). Applicants request that the Examiner withdraw the rejection of claim 2 at least because of its dependency from claim 1 and because Einthoven does not cure the deficiencies in Kawano discussed above.

Claim 3

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Ragaly (4,303,935). Applicants request that the Examiner withdraw the rejection of claim 3 at least because of its dependency from claim 1 and because Ragaly does not cure the deficiencies in Kawano discussed above.

Claim 4

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Mori et al. (US 5,828,564). Applicants request that the Examiner

withdraw the rejection of claim 4 at least because of its dependency from claim 1 and because Mori does not cure the deficiencies in Kawano discussed above.

Claims 7 and 8

Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Abadia et al. (US 5,883,450). Applicants request that the Examiner withdraw the rejection of claims 7 and 8 at least because of their dependency from claim 1 and because Abadia does not cure the deficiencies in Kawano discussed above.

Claims 12 and 18

Claims 12 and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Deverall et al. (US 5,451,823). Applicants request that the Examiner withdraw the rejection of claims 12 and 18 at least because of their dependency from claim 1 and because Deverall does not cure the deficiencies in Kawano discussed above.

Claim 14

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawano and Gautier in further view of Yoshinaga (US 5,886,403). Applicants request that the Examiner withdraw the rejection of claim 14 at least because of its dependency from claim 1 and because Yoshinaga does not cure the deficiencies in Kawano discussed above.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

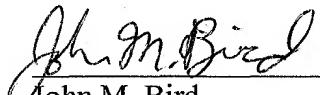
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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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Date: September 4, 2002